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ANATOMY OF PLANT QUARANTINES

Introduction

The recent concern over the use of modern pesticides has made it increasingly difficult for cooperating agencies to apply control measures needed to support effective quarantine operations. State and Federal agencies are still charged with the responsibility of suppressing plant pests and preventing or retarding their spread. Recent developments, principally stemming from the use of pesticides, have pointed out the need for a review of basic legislation authorizing plant pest control and plant quarantine activities.

This presentation will be limited to a review of quarantines. Rather than separating this discussion into those handled by State versus Federal agencies, it is believed desirable to review it from an overall standpoint. Our principal concern is that effective quarantine action be provided for rather than indicating the responsible agency. Quarantine operations, to be effective, frequently involve the combined cooperative efforts of both Federal and State agencies.

In an attempt to better handle this subject, I have divided the discussion into three general phases as follows: The Biologic and Economic Basis for Quarantine Action; The Legal Basis for Quarantine Action; and, Cooperation, The Basis for Effective Quarantine Action.

1. The Biologic and Economic Basis for Quarantine Action:

From the standpoint of plant pest control, we mean by "quarantine" regulating or controlling the movement of articles or conveyances which present a hazard of spreading unwanted plant pests. It does not imply embargo action although from a practical standpoint there occasionally may be no way to allow movement of certain articles which may spread the pest. A biologically sound quarantine is never imposed in order to obtain a trade advantage, rather it is limited to the action necessary to prevent the spread of unwanted plant pests.

Before quarantine action is considered, it must be determined that the pest is of such economic importance that a quarantine is desirable. Further, other means of coping with the problem should be explored to be sure that no approach is possible other than imposing a quarantine. Before invoking a quarantine, it must be determined that the economic gain as a result of this action will exceed the cost of the quarantine and its enforcement. There should be a reasonable expectation that the operation will be successful.

If, after making the above determinations, it has been decided that a quarantine is in order, it is essential that no more restrictions than necessary be imposed to meet the objectives of the quarantine. The degree of quarantine

action taken or the extent of restrictions imposed should be based upon the objective of the quarantine. Is it invoked to prevent the introduction of unwanted pests or to stop the spread of pests found in only a limited area of this country? Usually quarantines of this nature are invoked when the objective of the combined quarantine/control program is eradication. On the other hand, similar action may be undertaken if eradication is desirable even though eradication techniques are not available with the expectation that they may soon be developed. On other programs, the objective may be merely the retardation of spread particularly for those pests that are well entrenched and eradication is out of the question.

As indicated, a quarantine should arrange for the controlled or regulated movement of hazardous articles. The movement of such articles from infested or regulated areas may be allowed by an authorized inspector on the basis of any one of the following conditions:

- (1) The articles have not been exposed to infestation.
- (2) The articles have been grown, produced, or handled in such a manner that no infestation will be transmitted thereby.
- (3) The articles have been examined and found to be free of the pest.
- (4) The articles have been treated in accordance with authorized treatment procedures.
- (5) The articles are moved to designated plants where the pest hazard would be eliminated by processing; or, are moved for use or consumption in geographical areas within which the pest cannot become established.

Articles meeting any one of the first four numbered conditions are certifiable and may be moved to any destination. Those handled in accord with the fifth requirement are not certifiable and move under a document permitting controlled movement only to the point indicated. These conditions, therefore, provide for movement on the basis of three main principles, namely: (a) freedom from the pest organism; (b) treatment to eliminate the pest; or (c) processing or other end use which eliminates the pest risk.

In practical quarantine enforcement, it is essential that the source of the regulated article be given adequate attention and that control over movement be maintained at the source. This is important in connection with the enforcement of regulations designed to prevent the local spread of a pest organism.

For example, on a program such as white-fringed beetle in areas where eradication treatments are being applied, the movement of soil in connection with construction activities must be adequately controlled. If attention is given only

to the movement of soil from infested to noninfested areas, the problem can be adequately dealt with.

When treatments are approved as a basis for rendering an article free of the pest organism, consideration must be given to the hazard associated with each regulated article. When determining the relative hazard associated with each article, the end use of the product should be considered. For example, on the soybean cyst nematode program, the movement of sugar beets to plants for processing presents a hazard quite dissimilar to that if the beets were to be used for planting purposes. In this illustration, the requirements as a basis for certification for beets for processing need not be as stringent as those imposed as a basis for planting. In the latter instance, it is essential that the procedure used eliminates all pest risk associated with the movement.

When developing treatments as a basis for certification, consideration must be given to the time lapse required to kill the pest following treatment application. For example, a certification procedure based on an adequate fumigation schedule will render an article immediately free of pest risk. In some instances, however, an examination of the pest organism soon after treatment may indicate that it has survived the approved fumigation since there is a lapse of time before the organism is completely inactivated. On the other hand, a time lapse is usually necessary following treatments with residual pesticides before the pest risk is eliminated. For example, practical soil treatments have been developed as a basis for the elimination of the white-fringed beetle from infested nurseries. These treatments, however, do not eliminate all stages of the pest immediately. This factor is of particular importance when consideration is given to the need for quarantine action in areas where eradication treatments are to be undertaken. Quarantine enforcement is essential until such eradication treatments become fully effective. This factor has not been given proper consideration in a number of instances resulting in the fallacious principle of "treat and ignore quarantine."

As implied above, it is essential that treatment procedures be predicated on data from research. Adequate research investigations must be continued in support of pest control and quarantine programs in order that procedures may be modified, improved, and simplified on the basis of research findings. It is essential that procedures be adjustable as conditions change. On a casual review, adjustments in some instances may indicate a change in objective. However, such may not be the case, if the requirements are predicated on a sound biological basis. For example, road blocks were an essential part of the 1956-57 Medfly eradication/quarantine program at a stage when heavy infestations were prevalent in metropolitan areas. When such heavy infestations were eliminated and the remaining finds were confined to citrus producing areas and small communities, adequate quarantine compliance was obtained by working with the individual concerns rather than through the use of extensive and costly road blocks. Eradication was still the objective.

Finally, from a biological standpoint, quarantines should be under continual review in order that they may be revised or revoked if conditions so indicate.

2. The Legal Basis for Quarantine Action:

Before a quarantine is invoked, it is desirable to provide for a suitable public notice and hearing. In fact, under existing legislation in some States and at the Federal level, such notification and hearing is mandatory. However, the laws should provide for emergency authority to be applied as necessary in the interim period until it is possible to arrange for public notification and hearings. Currently the Federal Government does not have such authority. Therefore, any such emergency action must be handled under State authority. Consideration should be given to a modification of the Federal law in this respect.

Quarantine action must be based on adequate laws and it is essential that the operation be within such laws. It is desirable that these laws be carefully written and yet be as simple as possible so that they may be readily understood. It is also desirable that the quarantine regulations be confined to one document and that any requirements covering the application of control or eradication procedures be contained in other documents. The inclusion of both control and quarantine regulations in a single document has lead to difficulties in a number of instances.

If the quarantine action required involves more than one political subdivision, it is essential that there be a legal basis for adequate enforcement in every such political subdivision that may be involved. It has been ruled that Federal law takes precedence over a State law on the same subject. A Federal law authorizes quarantine action in relation to movement between States. On the basis of such a law, the State can seize material moving in accordance therewith only if upon inspection at destination the product is found to be infested with the pest organism. Otherwise, the State must accept the movement in accordance with Federal regulations. For those pests on which the Federal Government has not adopted a quarantine, the State may pass regulations as they see fit to provide for pest risk protection.

Federal regulations cannot provide for control over intrastate movement. Such control must be on the basis of State authority. Federal action may be restricted to that portion of a State known to be infested provided the State applies control over intrastate movement to the satisfaction of the Federal agency. The lack of Federal authority to control intrastate spread has, in several instances, led to difficulty when the Federal quarantine was extended to include the entire State and the State withdrew from their moral obligation to control intrastate spread. This is particularly true when all areas within the State are not known to be infested. In such instances, the course of action left to the Federal agency is to classify the entire State as infested and, therefore, require treatment of all regulated articles. This action does not appear just for those property owners whose properties are not actually known to be infested.

Therefore, it can be concluded that when a Federal quarantine has been invoked, States included within the provisions of the quarantine that are not generally infested or that have an interest in applying suppressive measures to reduce the seriousness of the pest should have a parallel State quarantine. States that are generally infested or have no interest in suppressive treatments need not invoke parallel quarantines; however, they have a moral obligation to their citizens to assist them in moving products regulated by the Federal quarantine. Such cooperative enforcement of quarantines warrants additional attention at this time.

Most States do not have the legal authority to protect themselves from infestation from other States and they, therefore, must rely on Federal action in cooperation with the action of the affected States. Such joint action provides the maximum protection to noninfested areas rather than either acting alone. This should be considered carefully by States whose entire area is under quarantine. These States need the cooperation of other States in order that they may be afforded such joint Federal/State protection against other unwanted pests.

In some States, laws prohibit expenditures that afford protection to other States. However, in this country, laws may be changed if it is in the State and National interest. Currently some States have interstate flood and forest fire compacts permitting the pooling of resources in order to adequately deal with these problems that cannot be handled by States operating independently. Should this not be applicable to plant pests as they likewise do not recognize State boundaries?

The Federal agency as provided in the Organic Act of 1944, as amended, has the right to carry on pest control and quarantine action independently or with States or other agencies. However, the State or other agency must provide the authority necessary to carry out these operations. The Federal agency does not have and, it probably would not be desirable for it to be provided with, right-of-entry as this should be handled under State legislation.

When should Federal quarantine action be initiated rather than leaving the effort to the State or States alone? This should be determined jointly by the cooperating agencies. There are no hard and fast rules. Generally, Federal action is indicated if the pest is of importance to several States. However, if the pest is restricted to only one State, quarantine action may be limited to that imposed by the single State. Usually, however, the Federal agency will participate in joint preparation and adequate enforcement of such a State quarantine. When infestations are found to involve more than one State, Federal action should be considered. In some such instances, joint parallel quarantine action by the affected States may still be desirable pending a determination as to the possible success of the program. For the

most part, States can take quarantine action more promptly than the Federal agency. Again, when more than one State is known to be infested, the Federal agency may participate in drawing up uniform State quarantines and assist in their enforcement.

State quarantine action alone may be desirable to complement organized control efforts particularly when the pests are distributed over all or the majority of their ecological limits. In such instances, uniform State quarantines should be adopted by all States known to be infested except for those not conducting any suppressive program and then only if by so doing they would not serve as a source of infestation to noninfested States and/or those conducting a suppressive program. Likewise, State action alone is indicated in instances where the effort is directed towards providing the public with reasonably pest-free products.

On the basis of a review of quarantines from a legal standpoint, it is obvious that State and Federal regulations must go hand-in-hand to most effectively prevent the spread of pests by means of quarantine action.

3. Cooperation--The Basis for Effective Quarantine Action:

Quarantines are designed to protect the interest of the public at large. To obtain the maximum benefit, it is essential that the various Federal and State agencies charged with their enforcement fully cooperate, one with the other. Quarantine actions often involve more than one Federal agency and a full understanding and cooperation between such agencies is essential. For example, full understanding between the Plant Quarantine and Plant Pest Control Divisions is mandatory as well as the cooperation of other affected Federal agencies such as the Post Office Department, military installations, Bureau of Public Roads, and others. Likewise, cooperation is indicated between various agencies within the States to provide for adequate enforcement of a quarantine.

Although quarantines are in the public interest, this fact often is not recognized by the public at large. Public cooperation can best be obtained by explaining the need for and objectives of the quarantine and how the public can assist rather than through a legalistic approach. It is admitted on the other hand that adequate laws are necessary as a final resort in instances where voluntary cooperation may not be forthcoming.

In recent years, it has been found to be more effective to handle quarantines on the basis of compliance rather than by enforcement per se. The development of modern treatments and other procedures has been partially responsible for this approach. It is now possible for nurserymen and others affected by a quarantine to so treat or handle their products as to render them free of the pest rather than by requiring individual commodity treatment. Likewise, some procedures have been approved which provide for the harvesting or other handling of regulated articles in a way that eliminates pest risk in lieu of requiring treatment of regulated articles per se.

To obtain adequate cooperation, it is essential that the public as well as others who are affected by the quarantine such as industries and transportation agencies be properly and fully informed. Mailing lists must be established and maintained to provide for such notification. Such lists include State regulatory officials, appropriate railroad and air carriers, staff of the PQ and PPC Divisions, miscellaneous interested persons and organizations, truck owners, shippers, industrial house organs, extension entomologists, and others. State agencies likewise should provide for a routine notification for such groups within their jurisdiction to complement Federal releases.

An area that particularly needs strengthening relates to a popular approach which will keep the general public well informed. Progress is being made in this regard at this time.

Conclusions:

From the above, it is hoped that you have concluded that pest control, eradication and quarantine must go hand in hand to provide maximum protection to the national welfare. This will prevent to the extent possible the placement of additional taxes on the American public in the form of unwanted plant pests.

Speech presented by:
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